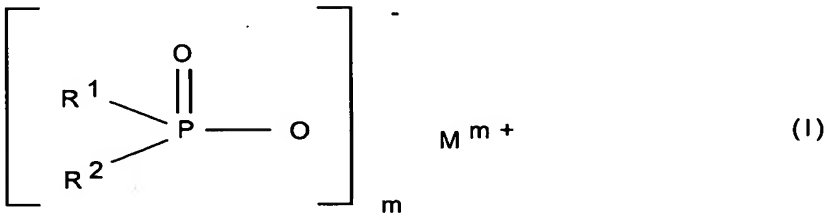
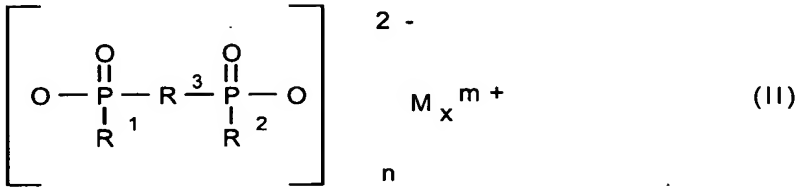
Patent claims:

1. A flame retardant-nanofiller combination for thermoplastic polymers, which comprises, as component A, a phosphinic salt of the formula (I) and/or a diphosphinic salt of the formula (II) and/or polymers of these,



(I)



(II)

where

R^1, R^2 are identical or different and are C_1-C_6-alkyl, linear or branched, and/or aryl;

R^3 is C_1-C_{10}-alkylene, linear or branched, C_6-C_{10}-arylene, -alkylarylene or -arylalkylene;

M is Al, Sb, Sn, Ge, Ti, Zn, Fe, Zr, Ce, Bi and/or Mn;

m is 1 to 4;

n is 1 to 4;

x is 1 to 4,

and comprises, as component B, condensation products of melamine, and/or reaction products of melamine with phosphoric acid or polyphosphoric acid, and/or comprises reaction products of condensation products of melamine with phosphoric acid or polyphosphoric acid, and/or comprises a mixture of

these, and/or comprises, as component C, organic intercalated phyllosilicates, a nanospherical oxide, or carbon nanotubes.

2. The flame retardant-nanofiller combination as claimed in claim 1, wherein R^1 and R^2 are identical or different and are C_1-C_6-alkyl, linear or branched, and/or phenyl.

3. The flame retardant-nanofiller combination as claimed in claim 1 or 2, wherein R^1 and R^2 are identical or different and are methyl, ethyl, n-propyl, isopropyl, n-butyl, tert-butyl, n-pentyl and/or phenyl.

4. The flame retardant-nanofiller combination as claimed in one or more of claims 1 to 3, wherein R^3 is methylene, ethylene, n-propylene, isopropylene, n-butylene, tert-butylene, n-pentylene, n-octylene or n-dodecylene; phenylene or naphthylene; methylphenylene, ethylphenylene, tert-butylphenylene, methylnaphthylene, ethylnaphthylene or tert-butylnaphthylene; phenylmethylene, phenylethylene, phenylpropylene, or phenylbutylene.

5. The flame retardant-nanofiller combination as claimed in one or more of claims 1 to 4, wherein M is calcium ions, aluminum ions, or zinc ions.

6. The flame retardant-nanofiller combination as claimed in one or more of claims 1 to 5, wherein component B comprises condensation products of melamine.

7. The flame retardant-nanofiller combination as claimed in one or more of claims 1 to 6, wherein the condensation products of melamine comprise melem, melam, melon and/or compounds thereof having higher condensation levels.

8. The flame retardant-nanofiller combination as claimed in one or more of claims 1 to 7, wherein component B comprises reaction products of melamine with polyphosphoric acid and/or comprises reaction products of condensation products of melamine with polyphosphoric acid, or comprises a mixture thereof.

9. The flame retardant-nanofiller combination as claimed in one or more of claims 1 to 8, wherein the reaction products comprise dimelamine pyrophosphate, melamine polyphosphate, melem polyphosphate, melam polyphosphate, melon polyphosphate, and/or mixed polysalts of this type.

10. The flame retardant-nanofiller combination as claimed in one or more of claims 1 to 9, wherein component B comprises melamine polyphosphate.

11. The flame retardant-nanofiller combination as claimed in one or more of claims 1 to 10, wherein the organic intercalated phyllosilicates comprise materials for which the starting materials are swellable smectites, such as montmorillonite, hectorite, saponite, or beidellite.

12. The flame retardant-nanofiller combination as claimed in one or more of claims 1 to 10, wherein the phyllosilicates have been intercalated using quaternary ammonium compounds, protonated amines, organic phosphonium ions, and/or aminocarboxylic acids.

13. A flame-retardant plastics molding composition which comprises a flame retardant-nanofiller combination as claimed in one or more of claims 1 to 12.

14. The flame-retardant plastics molding composition as claimed in claim 13, wherein the plastic comprises thermoplastic polymers of the type represented by HI (high-impact) polystyrene, polyphenylene ethers,

polyamides, polyesters, polycarbonates, and blends or polyblends of the type represented by ABS (acrylonitrile-butadiene-styrene) or PC/ABS (polycarbonate/acrylonitrile-butadiene-styrene), or PPE/HIPS (polyphenylene ether/HI polystyrene) plastics.

15. The flame-retardant plastics molding composition as claimed in claim 13 or 14, wherein the plastic comprises polyamides, polyesters and PPE/HIPS blends.

16. The flame-retardant plastics molding composition as claimed in one or more of claims 13 to 15, wherein the amount used of component A is from 2 to 20% by weight, the amount used of component B is from 1 to 30% by weight, and the amount used of component C is from 0.05 to 20% by weight, based on the plastics molding composition.

17. The flame-retardant plastics molding composition as claimed in one or more of claims 13 to 16, wherein the amount used of component A is from 5 to 10% by weight, the amount used of component B is from 5 to 10% by weight, and the amount used of component C is from 0.05 to 10% by weight, based on the plastics molding composition.

18. The flame-retardant plastics molding composition as claimed in one or more of claims 13 to 15, wherein the amount used of component A is from 2 to 20% by weight and the amount used of component C is from 0.05 to 5% by weight, based on the plastics molding composition.

19. A polymer molding, a polymer film, a polymer filament, or a polymer fiber which comprises a flame retardant-nanofiller combination as claimed in one or more claims 1 to 12.

20. The polymer molding, polymer film, polymer filament, or polymer fiber as claimed in claim 19, wherein the polymer comprises HI (high-impact) polystyrene, polyphenylene ethers, polyamides, polyesters, polycarbonates, and blends or polyblends of the type represented by ABS (acrylonitrile-butadiene-styrene), or PC/ABS (polycarbonate/acrylonitrile-butadiene-styrene).

21. The polymer molding, polymer film, polymer filament, or polymer fiber as claimed in claim 19 or 20, wherein the amount of component A present is from 2 to 20% by weight, the amount of component B present is from 1 to 30% by weight, and the amount of component C present is from 0.5 to 20% by weight, based on the polymer content.

22. The polymer molding, polymer film, polymer filament, or polymer fiber as claimed in claim 19 or 20, wherein the amount of component A present is from 5 to 10% by weight, the amount of component B present is from 5 to 10% by weight, and the amount of component C present is from 0.5 to 10% by weight, based on the polymer content.

23. The polymer molding, polymer film, polymer filament, or polymer fiber as claimed in claim 19 or 20, wherein the amount of component A present is from 2 to 20% by weight and the amount of component C present is from 0.5 to 5% by weight, based on the polymer content.